

TARO CULTIVATION IN KOSRAE

TAKUMI GEORGE

Crop Extension Supervisor, Division of Agriculture
Kosrae State Government, Federated States of Micronesia

Introduction

Kosrae is one of four states in the Federated States of Micronesia. It is a heavily forested volcanic island located at the Eastern end of the Caroline Islands group in the central Pacific Ocean. It lies about 500 km north of the equator and about 4,501 km southwest of Honolulu.

Subsistence farming and banana production are the main agricultural enterprises. The main subsistence crops are banana, breadfruit, citrus fruit, coconut, and taro.

The climate of Kosrae is characterized by high temperatures, heavy rainfall, and high humidity. The rainfall in the mountainous interior of the island is estimated to be as high as 300 inches annually.

Among the four types of forest, the swamp forest is used for growing taro. Most of the taro is planted in the swamp area, and very few farmers grow taro on dry land.

Taro (*Colocasia*) has been a staple food for the Pacific Islanders for a long time. It is known for its traditional use in food preparations for special occasions. Taro (locally called *Kutak*) can be used and prepared in various ways and is especially known for making *fafa* similar to Hawaiian *poi*. Because of its meaning to Kosraeans, the taro pounder is on the Kosrae State Government Flag.

Cultivars

There are some eight cultivars of a taro, four of which are considered endemic to Kosrae. These are: (1) *Fila*, (2) *Kosro* (for Kosrae), (3) *Falul*, and (4) *Yokin mulak*. Those varieties which are considered exotic to Kosrae include the following: (1) *Kutak Saipan*, (2) *Kutak Ruk* (for Chuuk), (3) *Kutak Pinglap*, and (4) *Kutak Srusra*.

With the exception of *Kutak Srusra*, the exotic cultivars are named after their respective places of origin. Three of the local varieties and two introduced varieties are slowly disappearing, with very small populations currently existing. The two most widely used taro varieties for *fafa* are the *Kosro* and the *Kutak Chuuk*. The rest of the varieties are used for *fafa* only to a certain extent.

Soil

The typical type of soil commonly used for taro cultivation is of the Inkosr series, which consists of very deep, poorly drained soils on bottom land and marsh areas. Both *Cyrtosperma* and *Colocasia* are suitable to grow on these types of soil. However, current practice now includes *Colocasia* cultivation on the Nansepsep soil type where hills about one-half feet high are constructed for planting. This type of soil consists of very deep, somewhat poorly drained soil on bottom land with slopes between 0 and 2 percent. The only variety currently being experimented with on dry soil is the *Kutak Srusra*, which is the sole variety used at the Kosrae Agriculture Station trial plot. This trial plot is established on a one-half acre lot. Commercial fertilizers (NPK) are applied at basal and top dressings.

The spacing being used is 2 feet x 2 feet. Leaf hoppers and aphids are the only pest problems. Root rot is also observed on the corm.

Cultivar Descriptions

The following tables describe each of the taro cultivars.

Table 1. *Colocasia* - *Kutak*

Variety	Description
<i>Kutak Saipan</i>	Red stock, purple whitish corm
<i>Kutak Chuuk</i>	White stalk, white corm
<i>Kutak Fila</i>	White stalk, yellow corm
<i>Kutak Kosro</i>	Red stalk, white corm
<i>Kutak Pinglap</i>	Red stalk, white-reddish corm
<i>Kutak Srusra</i>	Red stalk, white corm (also called Kosrae taro)
	(commercial variety)
<i>Kutak Falul</i>	Green stalk, white corm
<i>Kutak Yukinmulak</i>	

Table 2. *Cyrtosperma* - *Pasruk*

Variety	Description	Maximum weight
<i>Epon</i>	Good for starch processing	90 lbs
<i>Wasrwasr</i>	Whitish-grey smooth stalk	25 lbs
<i>Kumgesi</i>	Yellowish, spine on stalk	25 lbs
<i>Tepat</i>	Reddish smooth stalk	40 lbs
<i>Semington</i>	Reddish-green stalk	20 lbs
<i>Emiot</i>	Reddish-green smooth stalk	20 lbs
<i>Pasruk fuka</i>	Reddish-green smooth stalk (girdle leaves)	20 lbs
<i>Pasruk sroalsroal</i>	Reddish-black stalk	25 lbs
<i>Pasruk mokil</i>	Dark green spiny stalk	10 lbs

Table 3. *Alocasia* and *Xanthosoma* names

Species	Name	Description
<i>Alocasia</i>	<i>Sra onak</i>	Inedible
<i>Santhosoma</i>	<i>Kutak mokil</i>	Main corm inedible (small outer roots edible)

Taro Market

Sixty-six percent of the land in Kosrae has the potential to be used for agriculture. Currently about 23 percent is in agriculture. It is estimated that 15 acres are in taro production. The following table depicts the decline in production over the last five years:

Table 4. Taro production in Kosrae, 1986-1992.

Year	Estimated pounds of taro grown or sold	Price/lb	Pounds exported
1991-1992	15,000	.40	0
1990	10,000	.35	0
1989	20,000	.35	670
1988	25,000	.35	7,102
1987	30,000	.35	12,375
1986	36,000	.35	13,954

The Editor

L. Ferentinos is the Project Coordinator of the Taro Production Systems Project at the University of Hawai'i at Manoa.

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